

***REMARKS***

The Examiner is thanked for the thorough examination of the present application. The Office Action mailed July 11, 2008 rejected claims 1-8, and 15-26. This is a full and timely response to that outstanding Office Action. Upon entry of the amendments in this response, claims 1, 2, 4-8, 15-22, and 24-26 are pending. More specifically, claims 1 and 15-21 are amended and claims 3 and 23 are canceled. No new matter is added to the present application by these amendments. Claims 3 and 23 are canceled without prejudice, waiver, or disclaimer. Applicants take this action merely to reduce the number of issues and to facilitate early allowance and issuance of the present application. Applicants reserve the right to pursue the subject matter of these canceled claims in a continuing application, if Applicants so choose, and does not intend to dedicate any of the canceled subject matter to the public. These amendments are specifically described hereinafter.

**I. Present Status of Patent Application**

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. Claims 1, 2, 4-8, 15, 16, 18-22, and 24-26 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over *Erjanne* (U.S. Pat. No. 6,490,271) in view of *Uemura* (U.S. Pat. No. 6,430,161) and in further view of *Sherman* (U.S. Pat. No. 6,434,513). Claims 3, 17, and 23 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over *Erjanne* (U.S. Pat. No. 6,490,271) in view of *Uemura* (U.S. Pat. No. 6,430,161) and *Sherman* (U.S. Pat. No. 6,434,513), and in further view of

*Beach* (U.S. Pat. No. 7,126,945). To the extent that these rejections have not been rendered moot by the cancellation of claims, they are respectfully traversed.

**II. Rejections Under 35 U.S.C. §103(a)**

**A. Claims 1-8**

The Office Action rejects claims 1, 2, and 4-8 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Erjanne* (U.S. Pat. No. 6,490,271) in view of *Uemura* (U.S. Pat. No. 6,430,161) and in further view of *Sherman* (U.S. Pat. No. 6,434,513). The Office Action rejects claim 3 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Erjanne* (U.S. Pat. No. 6,490,271) in view of *Uemura* (U.S. Pat. No. 6,430,161) and *Sherman* (U.S. Pat. No. 6,434,513), and in further view of *Beach* (U.S. Pat. No. 7,126,945).

**Independent claim 1** recites:

1. A method for reducing CPU loading in a software receiver for a packet based communications system comprising the steps of:
  - measuring the current CPU load by measuring an interrupt latency;
  - determining whether the CPU load has exceeded a predetermined threshold;
  - responsive to determining that the CPU has exceeded a predetermined threshold, entering a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception;**
  - monitoring the CPU load while the transmitter is inhibited;
  - determining that the CPU load has fallen below a predetermined threshold; and
  - signaling the communications system transmitter to begin transmitting packets once the CPU load has fallen below the predetermined threshold, wherein the signaling clears the PS bit.

(Emphasis added).

Applicants respectfully submit that claim 1 is patentably distinct from the cited art for at least the reason that the cited art does not disclose the features emphasized above. For a proper rejection of a claim under 35 U.S.C. §103, the cited combination of references must disclose, teach, or suggest all elements/features of the claim at issue. See, e.g., *In re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988) and *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

Applicants respectfully submit that the amendments to claim 1 have rendered the rejection moot. Applicants respectfully submit that independent claim 1 is allowable for at least the reason that the combination of *Erjanne*, *Uemura*, and *Sherman* does not disclose, teach, or suggest at least **responsive to determining that the CPU has exceeded a predetermined threshold, entering a power save mode by setting a**

**Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception.**

Even if, assuming for the sake of argument, *Erjanne* discloses monitoring packet transmission rates, *Erjanne* fails to disclose responsive to determining that the CPU has exceeded a predetermined threshold, entering a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception. Even if, assuming for the sake of argument, *Uemura* discloses monitoring packet transmission rates, *Uemura* fails to disclose responsive to determining that the CPU has exceeded a predetermined threshold, entering a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception. Even if, assuming for the sake of argument, *Sherman* discloses measuring CPU load by measuring response time to a request, *Sherman* fails to disclose responsive to determining that the CPU has exceeded a predetermined threshold, entering a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception. As the cited combination of references does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 1, the rejection should be withdrawn for at least that reason.

For at least the reason that independent claim 1 is allowable over the cited references of record, dependent claims 2-8 (which depend from independent claim 1)

are allowable as a matter of law for at least the reason that dependent claims 2-8 contain all the features of independent claim 1. *See Minnesota Mining and Manufacturing Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002) (*Jeneric/Pentron, Inc. v. Dillon Co.*, 205 F.3d 1377, 54 U.S.P.Q.2d 1086 (Fed. Cir. 2000); *Wahpeton Canvas Co. v. Frontier Inc.*, 870 F.2d 1546, 10 U.S.P.Q.2d 1201 (Fed. Cir. 1989)). Therefore, the rejection of claims 2-8 should be withdrawn and the claims allowed.

Additionally, with regard to the rejection of claim 3, *Beach* does not make up for the deficiencies of *Erjanne*, *Uemura*, and *Sherman* noted above. Therefore, claim 3 is considered patentable over any combination of these documents for at least the reason that claim 3 incorporates allowable features of claim 1 as set forth above.

B. Claims 15-20

The Office Action rejects claims 15, 16, and 18-20 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Erjanne* (U.S. Pat. No. 6,490,271) in view of *Uemura* (U.S. Pat. No. 6,430,161) and in further view of *Sherman* (U.S. Pat. No. 6,434,513). The Office Action rejects claim 17 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Erjanne* (U.S. Pat. No. 6,490,271) in view of *Uemura* (U.S. Pat. No. 6,430,161) and *Sherman* (U.S. Pat. No. 6,434,513), and in further view of *Beach* (U.S. Pat. No. 7,126,945).

**Independent claim 15 recites:**

15. An apparatus for reducing CPU loading in a software receiver for a packet based communications system comprising:

A processor configured with digital logic configured to:

- measure the current CPU load by measuring the response time of the CPU to a request for processor time;
- determine whether the CPU load has exceeded a predetermined threshold;
- responsive to determining that the CPU has exceeded a predetermined threshold, enter a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception;***
- monitor the CPU load while the transmitter is inhibited;
- determine whether the CPU load has fallen below a predetermined threshold; and
- signal the communications system transmitter to begin transmitting packets once the CPU load has fallen below the predetermined threshold, wherein the signaling clears the PS bit.

(Emphasis added).

Applicants respectfully submit that claim 15 is patentably distinct from the cited art for at least the reason that the cited art does not disclose the features emphasized above. Applicants respectfully submit that the amendments to claim 15 have rendered the rejection moot. Applicants respectfully submit that independent claim 15 is allowable for at least the reason that the combination of *Erjanne*, *Uemura*, and *Sherman* does not disclose, teach, or suggest at least **responsive to determining that the CPU has exceeded a predetermined threshold, enter a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception.**

Even if, assuming for the sake of argument, *Erjanne* discloses monitoring packet transmission rates, *Erjanne* fails to disclose responsive to determining that the CPU has exceeded a predetermined threshold, enter a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception. Even if, assuming for the sake of argument, *Uemura* discloses monitoring packet transmission rates, *Uemura* fails to disclose responsive to determining that the CPU has exceeded a predetermined threshold, enter a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception. Even if, assuming for the sake of argument, *Sherman* discloses measuring CPU load by measuring response time to a request, *Sherman* fails to disclose responsive to determining that the CPU has exceeded a predetermined threshold, enter a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception. As the cited combination of references does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 15, the rejection should be withdrawn for at least that reason.

For at least the reason that independent claim 15 is allowable over the cited references of record, dependent claims 16-20 (which depend from independent claim 15) are allowable as a matter of law for at least the reason that dependent claims 16-20 contain all the features of independent claim 15. Therefore, the rejection of claims 16-20 should be withdrawn and the claims allowed.

Additionally, with regard to the rejection of claim 17, *Beach* does not make up for the deficiencies of *Erjanne*, *Uemura*, and *Sherman* noted above. Therefore, claims 17 is considered patentable over any combination of these documents for at least the reason that claim 17 incorporates allowable features of claim 15 as set forth above.

C. Claims 21, 22, and 24-26

The Office Action rejects claims 21, 22, and 24-26 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Erjanne* (U.S. Pat. No. 6,490,271) in view of *Uemura* (U.S. Pat. No. 6,430,161) and in further view of *Sherman* (U.S. Pat. No. 6,434,513). The Office Action rejects claim 23 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Erjanne* (U.S. Pat. No. 6,490,271) in view of *Uemura* (U.S. Pat. No. 6,430,161) and *Sherman* (U.S. Pat. No. 6,434,513), and in further view of *Beach* (U.S. Pat. No. 7,126,945).

**Independent claim 21** recites:

21. A system for reducing CPU loading in a software receiver for a packet based communications system comprising a processing means comprising:  
means for measuring the current CPU load by measuring an interrupt latency;  
means for determining whether the CPU load has exceeded a predetermined threshold;  
**means for, responsive to determining that the CPU has exceeded a predetermined threshold, entering a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception;**  
means for monitoring the CPU load while the transmitter is inhibited;  
means for determining that the CPU load has fallen below a predetermined threshold; and  
means for signaling the communications system transmitter to begin transmitting packets once the CPU load has fallen below the predetermined threshold, wherein the signaling clears the PS bit.

(Emphasis added).

Applicants respectfully submit that claim 21 is patentably distinct from the cited art for at least the reason that the cited art does not disclose the features emphasized above. Applicants respectfully submit that the amendments to claim 21 have rendered the rejection moot. Applicants respectfully submit that independent claim 21 is allowable for at least the reason that the combination of *Erjanne*, *Uemura*, and *Sherman* does not disclose, teach, or suggest at least **means for, responsive to determining that the CPU has exceeded a predetermined threshold, entering a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception.**

Even if, assuming for the sake of argument, *Erjanne* discloses monitoring packet transmission rates, *Erjanne* fails to disclose means for, responsive to determining that the CPU has exceeded a predetermined threshold, entering a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception.

Even if, assuming for the sake of argument, *Uemura* discloses monitoring packet transmission rates, *Uemura* fails to disclose means for, responsive to determining that the CPU has exceeded a predetermined threshold, entering a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception.

Even if, assuming for the sake of argument, *Sherman* discloses measuring CPU load by measuring response time to a request, *Sherman* fails to disclose means for, responsive to determining that the CPU has exceeded a predetermined threshold, entering a power save mode by setting a Power Save (PS) bit in a frame control word, thereby signaling the communications system transmitter to inhibit packet transmission and packet reception. As the cited combination of references does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 21, the rejection should be withdrawn for at least that reason.

For at least the reason that independent claim 21 is allowable over the cited references of record, dependent claims 22 and 24-26 (which depend from independent claim 21) are allowable as a matter of law for at least the reason that dependent claims

22 and 24-26 contain all the features of independent claim 21. Therefore, the rejection of claims 22 and 24-26 should be withdrawn and the claims allowed.

**III. Miscellaneous Issues**

Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and official notice, or statements interpreted similarly, should not be considered well known for the particular and specific reasons that the claimed combinations are too complex to support such conclusions and because the Office Action does not include specific findings predicated on sound technical and scientific reasoning to support such conclusions.

***CONCLUSION***

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1, 2, 4-8, 15-22, and 24-26 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

It is believed that no extensions of time or fees for net addition of claims are required, beyond those which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to deposit account No. 20-0778.

Respectfully submitted,

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